Olympic Pipe Line Company
Completed Safety Actions Fact Sheet
July 14, 2006

The following timeline and fact sheet describes the safety actions that have been completed by Olympic Pipe Line Company (OPL) including those that were mandated by the federal Pipeline & Hazardous Materials Safety Administration - Office of Pipeline Safety (PHMSA/OPS) under a Corrective Action Order (CAO) that was issued shortly after the Whatcom Creek incident in June 1999.

Timeline

- June 10, 1999 - Whatcom Creek incident
- June 18, 1999 - PHMSA/OPS issued CAO to Olympic
- August 10, 1999 and September 24, 1999 - CAO amended by PHMSA/OPS
- July 1, 2000 - BP Pipelines becomes Operator of Olympic
- October 8, 2002 - National Transportation Safety Board (NTSB) Pipeline Accident Report adopted
- June 18, 2003 - Consent Decree between the United States and OPL entered by Court (duration at least 5 years) requiring 5 key safety programs
- July 25, 2003 - Final CAO issued by PHMSA/OPS

BP's Actions as Operator of Olympic

- Committed to restoring excellence across the entire Olympic system
- Installed new management team & new management system framework
- Changed the organizational structure
- Rebuilt community confidence in Olympic

Operating System Changes

- Control System Upgrades
- New emphasis on Safety with all employees
- Safety and Integrity Program (S&I)
- Damage Prevention

Commitment to HSSE Performance

- Goals are simply stated – no accidents, no harm to people, and no damage to the environment.
- Everyone who works for BP, anywhere, is responsible for getting HSSE right. Good HSSE performance and the health, safety and security of our employees and the communities in which we operate are critical to the success of our business.

- Olympic and BP Pipelines (North America) are ISO-14001 Certified in their Environmental Management Systems (Olympic was certified in 2002 with recertification 2003 and 2004) in recognition of environmental excellence. Olympic is the only liquid pipeline in the Northwest with this designation and one of few in the country.
- System Security
  - Performed Security Audit
  - Assess risks and vulnerabilities
  - Defined action plans to meet higher security alert levels as applied to specific sites and segments
  - Individual Checks of Facilities Daily
  - Annual Assessments – BP Group Security and Business Unit Personnel
  - 3rd Party Security on Retainer for "Higher Alert"

Pipeline Integrity Actions

- Completion of pipeline internal inspections totaling 2800 miles on the 400-mile Olympic system using various internal inspection technologies:
  - 2 high-resolution magnetic flux (MFL) "metal loss" tool runs of entire system in 2000 and in 2004/2005
  - 4 deformation (DEF) "dent" tool runs of entire system in 2000, 2001, 2003, and 2004/2005
  - 1 inspection tool using transverse field inspection (TFI) "seam integrity" on all seamed pipe throughout the Olympic system in 2001 and 2002
  - Ultrasonic internal inspection testing of FA16" segment in 2000
- Field inspections and mitigation actions completed on almost 600 anomalies identified by the above internal inspections
- Hydrotesting conducted on 2 complete segments
  - Ferndale-Allen 16"
  - Allen-Renton 16"
- Hydrotesting conducted selectively on low-frequency pre-1970 ERW pipe
  - Anacortes-Allen 16" across Swinomish Slough in Skagit County, WA
  - Renton-Portland 14" across the Columbia River and Multnomah Channel
- Major horizontal directionally drilled pipe replacements (AR16" – Stillaguamish River, AR16" & AR20" – Ebey Slough, RP14" – Kalama River)
- Hazop of Bayview facility prior to return to service
- Internal inspections going forward will follow IMP/HCA pipeline safety requirements

Other Pipeline Right-of-Way or Facility Safety Actions

- Ongoing Geo-technical assessments and rigorous landslide and erosion monitoring across the right-of-way occasionally involving actions such as horizontal directional drills to relocate the pipeline out of areas prone to movement or other measures to protect areas prone to erosion
- Valve effectiveness study and installation and/or conversion of valves have been completed on many segments and are ongoing on remaining segments
- Ongoing focus on cathodic protection systems
- Extensive damage prevention program including on-site monitoring of construction activities around the pipeline
- Right-of-way maintenance to keep the surface conditions clear and visible to facilitate frequent patrols
- Re-training pipeline controllers and compliance with the federal Operator Qualification Rule.
- Pressure surge analyses using computer simulations to analyze conditions in the pipeline under normal and abnormal operating conditions to establish that operating pressures remain within allowable limits.
- Extensive hardware and software upgrades to the SCADA computer system that the pipeline controllers use to operate the pipeline.
    - Instant messaging via pager of significant system events
    - Triple-redundant communication paths with automatic path switching by host
    - Diverse communication modes for data
    - Extensive digital security enhancements
    - Monitoring 24/7 of key system performance metrics, e.g. CPU utilization and communications
    - Aggressive standardization program for control systems at facilities
    - Ongoing Incremental improvements to leak detection system
    - Open dialogue between Systems and Operations teams for continuous improvement
- Secondary containment projects have been completed at one-third of the pump station facilities and are ongoing
- Facility integrity management to incorporate system integrity at pump stations